

Amendments to the Claims:

Please cancel claims 12, 14 and 16, add new claims 60-63 and amend the claims as indicated below. This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A composition, comprising:  
a particle chain having at least two connected particles and a link that connects the at least two connected particles, wherein:  
the at least two connected particles include a first particle comprising a first polymer and a second particle comprising a second polymer,  
at least one of the at least two connected particles has an interior region with pores having a mean size and a surface region with pores having a mean size,  
the mean size of the pores of the interior region of the at least one of the at least two connected particles is greater than the mean size of the pores of the surface region of the at least one of the at least two connected particles; and the particle chain includes at least one of the following:
  - (a) the link having an aspect ratio of at most about 1,000 ~~and~~ the link having an aspect ratio of at least about 0.001; and
  - (b) a ratio of the diameter of one of the at least two particles to a width of the link is at least about 0.5 ~~and~~ the ratio of the diameter of one of the at least two particles to a width of the link is at most about 100.
2. (Original) The composition of claim 1, wherein each of the at least two connected particles has a diameter of from about ten microns to about 3,000 microns.

3. (Original) The composition of claim 1, wherein the particle chain has a restrained length of at most about 50 centimeters.

4. (Original) The composition of claim 1, wherein the particle chain has a restrained length of at least about one centimeter.

5. (Cancelled)

6. (Previously Presented) The composition of claim 1, wherein the link has a length of at most about 50,000 microns.

7. (Previously Presented) The composition of claim 1, wherein the link has a length of at least about one micron.

8. (Previously Presented) The composition of claim 1, wherein the link has a width of at most about 0.01 inch.

9. (Previously Presented) The composition of claim 1, wherein the link has a width of at least 0.001 inch.

10. (Currently Amended) The composition of claim 1, wherein the link has an aspect ratio of at most about 1,000 and an aspect ratio of at least 0.001.

11. (Previously Presented) The composition of claim 1, wherein the link has an aspect ratio of at most 25.

12. (Cancelled).

13. (Currently Amended) The composition of claim 1, wherein a ratio of the diameter of one of the at least two particles to a width of the link is at most about 100 and the ratio of the diameter of one of the at least two particles to a width of the link is at least about 0.5.

14. (Cancelled).

15. (Previously Presented) The composition of claim 1, wherein the link comprises a polymer or a metal.

16. (Cancelled).

17. (Previously Presented) The composition of claim 1, wherein the link comprises a material that is different from a material of at least one of the particles.

18. (Cancelled)

19. (Previously Presented) The composition of claim 1, wherein the link is attached to at least one of the particles.

20. (Previously Presented) The composition of claim 1, wherein the link is a polymer link that is grafted to the particles.

21. (Previously Presented) The composition of claim 1, wherein the first polymer is the same as the second polymer.

22. (Previously Presented) The composition of claim 1, wherein the first polymer is different from the second polymer.

23. (Original) The composition of claim 1, wherein the at least two connected particles comprise first and second particles, and a diameter of the first particle is the same as a diameter of the second particle.

24. (Original) The composition of claim 1, wherein the at least two connected particles comprise first and second particles, and a diameter of the first particle is different from a diameter of the second particle.

25. (Previously Presented) The composition of claim 1, wherein the composition further comprises a carrier fluid, and the particle chain is in the carrier fluid.

26. (Original) The composition of claim 25, wherein the carrier fluid comprises a saline solution.

27. (Original) The composition of claim 25, wherein the carrier fluid comprises a contrast agent.

28. (Original) The composition of claim 25, wherein the at least two connected particles have an arithmetic mean diameter of about 3,000 microns or less.

29. (Original) The composition of claim 25, wherein the at least two connected particles have an arithmetic mean diameter of about ten microns or more.

30. (Original) The composition of claim 1, wherein the particle chain has a two-dimensional structure.

31. (Original) The composition of claim 1, wherein the particle chain has a three-dimensional structure.

32-48. (Cancelled).

49. (Previously Presented) The composition of claim 1, wherein the link has a length of at least about 500 microns.

50. (Previously Presented) The composition of claim 1, wherein the link has a length of at least about 1,000 microns.

51. (Previously Presented) The composition of claim 1, wherein the link has a length of at least about 5,000 microns.

52. (Previously Presented) The composition of claim 1, wherein the link has a length of at least about 10,000 microns.

53. (Previously Presented) The composition of claim 1, wherein the link has a length of at least about 30,000 microns.

54. (Currently Amended) A composition, comprising:  
a particle chain having at least two connected particles and a link that connects the at least two connected particles, wherein:

- the particle chain comprises a material, the material comprising a polymer;
- at least one of the at least two connected particles comprises the material;
- the at least one of the at least two connected particles has an interior region with pores having a mean size and a surface region with pores having a mean size;
- the mean size of the pores of the interior region of the at least one of the at least two connected particles is greater than the mean size of the pores of the surface region of the at

least one of the at least two connected particles; and the particle chain includes at least one of the following:

- (a) the link having an aspect ratio of at most about 1,000 ~~and~~ the link having an aspect ratio of at least about 0.001; and
- (b) a ratio of the diameter of one of the at least two particles to a width of the link is at least about 0.5 ~~and~~ the ratio of the diameter of one of the at least two particles to a width of the link is at most about 100.

55. (Cancelled)

56. (Previously Presented) The composition of claim 54, wherein the polymer comprises PVA.

57. (Previously Presented) The composition of claim 56, further comprising a carrier fluid, wherein the particle chain is in the carrier fluid.

58. (Previously Presented) The composition of claim 54, further comprising a carrier fluid, wherein the particle chain is in the carrier fluid.

59. (Previously Presented) The composition of claim 54, further comprising a carrier fluid, wherein the particle chain is in the carrier fluid.

Please add the following new claims.

60. (New) The composition of claim 1, further comprising a particle chain complex comprising the first particle attached to two or more particle chains.

61. (New) The composition of claim 21, wherein the link is formed of the first polymer.

62. (New) The composition of claim 61, wherein the first polymer comprises PVA.

63. (New) The composition of claim 62, wherein the first particle has a sphericity of about 0.9 or more.